

SOUTHEAST MEMPHIS

ANNEXATION AREA

(Study Area #33)

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Office of Planning and Development

November, 1987

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## I. INTRODUCTION

This report examines the current and future development pattern of the proposed Southeast Memphis Annexation Area (Study Area #33), and presents the costs and benefits of the area becoming a part of Memphis.

The Southeast Memphis Annexation Area, herein called the "Study Area", encompasses approximately 15.6 square miles and is located to the south and east of the present Memphis City Limits. The general boundaries are the Nonconnah Creek on the north, Germantown Road on the east, Holmes Road and Shelby Drive on the south and the Memphis City Limits on the west. A detailed legal description of the area is provided in Appendix A, and the boundaries are shown on Map 1.

The Southeast Memphis Annexation Area has been under study for annexation since 1969. The first formal study was completed in 1975 and periodic studies have been conducted since that year. Each study provided increasing evidence that annexation of the area has been justified.

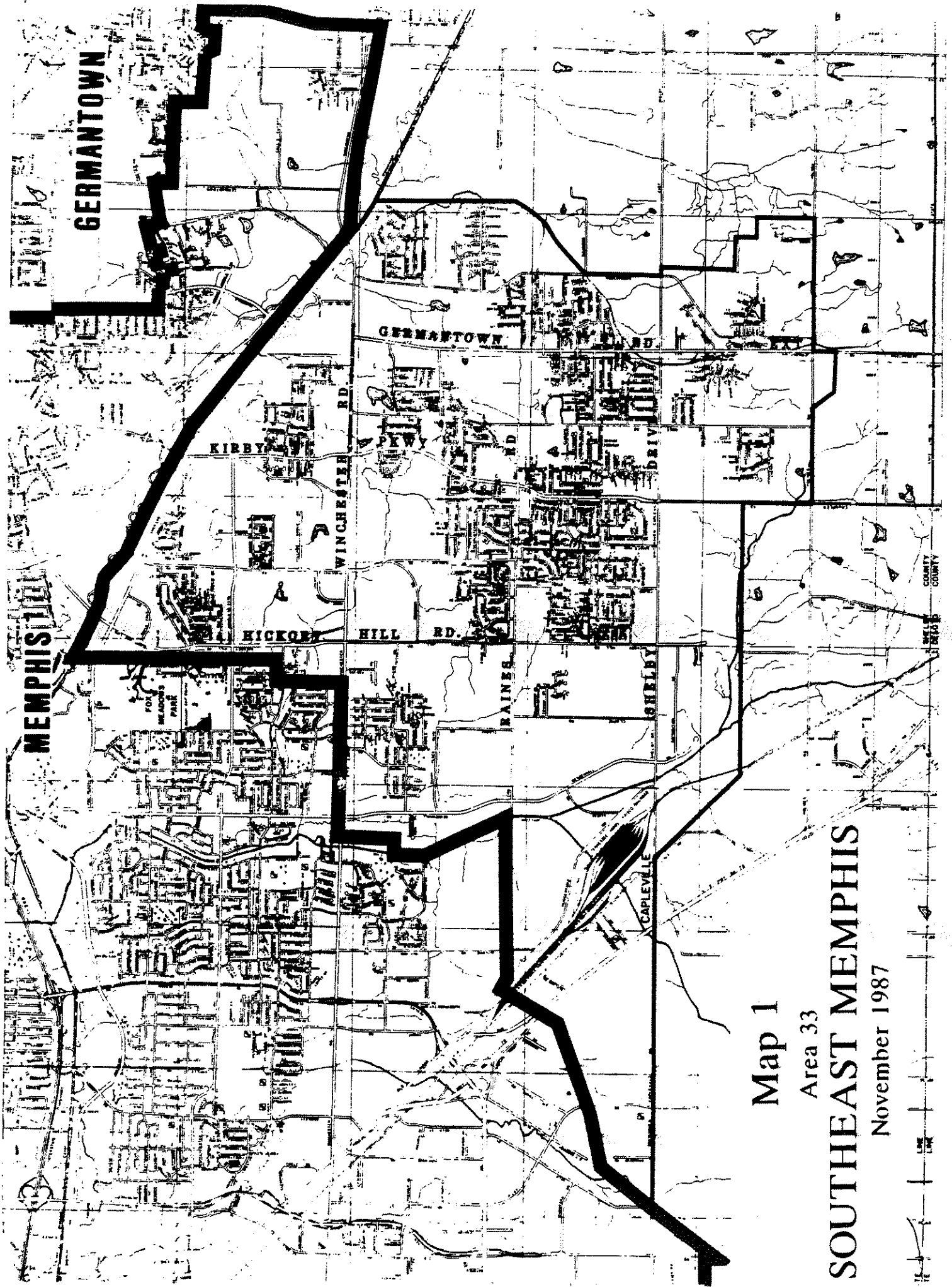
The most recent annexation study to consider annexation boundaries similar to those contained herein was completed in 1984 and entitled, "Winchester-Hickory Hill, Study Area #27." This report updates and extends upon that 1984 study.

In October 1985, Memphis State University completed a study entitled, "An Economic Analysis of Selected Responses to Annexation: City of Memphis, TN 1960-1980." This study indicated that annexation is a feasible growth management policy for the City and is consistent with the growth policies of other major metropolitan areas. The Memphis State University study affirms over 150 years of annexation by the City of Memphis and provides relevant testimony to support the process of annexation.

Annexation is a process, legally defined in Tennessee law, which enables a city to grow and serve the people of an urban area. When the area next to a city's border reaches an urban density, two needs become apparent: 1. the municipality needs to upgrade its cultural, recreation, transportation, health and protective services as a result of increased demands from the unincorporated urban fringe; and, 2. the area's residents need increased levels of services and facilities not previously required in a low density environment.

The rapid decentralization of the Memphis population into the area beyond its southeastern border has required that Memphis citizens pay a disproportionate share of the costs of services which are provided County-wide. First, the movement of shopping centers, office developments and factories into the urban fringe has impacted the Memphis tax base at a time when its infrastructure is aging. Second, the population in the southeastern urban fringe has steadily increased demands on facilities located in Memphis.

The level of urban density in the southeastern fringe of Memphis has resulted in insufficient facilities within the area. Serious deficiencies exist for such municipal services as fire protection, police protection, recreation and traffic control.



Map 1

Area 33

SOUTHEAST MEMPHIS

November 1987

COUNTY  
COUNTY

Memphis is the social-economic-cultural magnet which attracts growth to Shelby County. The citizens of Memphis finance most of the services which new residents and businesses utilize. Therefore, it is in the best interest of the citizens of Memphis and Shelby County that these businesses and residents become full partners in Memphis' development.

#### ORGANIZATION OF REPORT

The relevant data and analyses required to support a decision to annex the Study Area are divided into four chapters following this Introduction. Chapter II presents past trends, present conditions and future projections of population, housing and land use. Chapter III compares the current level of service received by residents of the Study Area with the level of services to be provided after annexation. Chapter IV compares the proposed annexation to the policies of the "Memphis 2000 Policy Plan" as adopted by the respective legislative bodies of Memphis and Shelby County. Chapter V presents an analysis of the costs and revenues associated with the proposed annexation.

## II. GROWTH TRENDS IN THE STUDY AREA

### DENSITY OF DEVELOPMENT

The Southeast Memphis Study Area encompasses approximately 9,984 acres of land or 15.61 square miles. It is the most densely populated area considered for annexation in recent years. Over the past seven years the density of the Southeast Memphis Study Area has increased 98.3 percent as population has grown from 1293 persons per square mile in 1980 to 2564 persons per square mile in 1987, about 100 persons per square mile more than the City of Memphis. The density of the City of Memphis is currently 2454 persons per square mile. The current estimated population for the Study Area is 40,024. A comparison of the density of Southeast Memphis Study Area to five previous annexations and the City of Memphis is shown in Table 1 below.

TABLE 1: COMPARISON OF DENSITY FOR ANNEXATION AREAS

AREA	DENSITY (Persons/Sq. Mi.)	LAND AREA (Sq. Mi.)	DATE OF ANNEXATION
Whitehaven	1854	19.74	1969
Parkway Village	1030	13.33	1965
Raleigh	945	12.70	1972
Kirby-Hacks Cross	199	4.41	1975
Whitten Road	1220	1.30	1975
CITY OF MEMPHIS	2454	264.10	N/A*
SOUTHEAST MEMPHIS	2564	15.61	1987**

\* Based on the 1984 estimate of population by Bureau of the Census.

\*\*Date of proposed annexation ordinance.

Since 1982, the southeast portion of Shelby County has experienced intensified development. Residential subdivisions now extend east of Old Germantown Road nearly to Hacks Cross Road and south of Holmes Road. Residential development over the past five years has consisted of primarily single-family detached housing east of Ross Road and South of Raines Road. Single-family attached housing and multi-family developments have been concentrated on the perimeter of the Urban Center - Hickory Ridge Mall - or along major roads.

Hickory Ridge Mall is the third largest urban center in the Memphis region and has been a contributing factor to the growth in the area. This Urban Center was designated in the last two comprehensive plans for Memphis and Shelby County. The development pattern of the Urban Center is both consistent with, and promoted by, the Memphis 2000 Policy Plan. The urban center is a centralized location which promotes a variety of uses and services in proximity to its service population. It contains a mixture of higher density residential, commercial, office and governmental facilities.

The development pattern beyond the urban center is consistent with the Oakhaven-Parkway Village Planning District Study completed in 1973. The 1990 urbanized area projected in the Study showed residential development extending east of Germantown Road and south of Shelby Drive with appropriately located

commercial centers, and an industrial center located along the railroad and Shelby Drive in proximity to U.S. Highway 78 (Lamar Avenue).

The boundaries of the Southeast Memphis Study Area have been designated to concentrate on this particularly dense and urbanized area. The annexation is proposed in order that the level of services necessary to support this urbanized area can be provided.

#### POPULATION AND HOUSING

Since 1970, the area has experienced one of the highest growth rates in the Memphis metropolitan area. Compared to the growth rates for Shelby County, the City of Memphis and suburban areas, the Study Area's growth of 568.0 percent has been extremely high (See Table 2).

TABLE 2: GROWTH RATES IN SHELBY COUNTY

	1970	1980	% Change
Shelby County	722,014	777,113	7.6
Memphis	623,530	646,356	3.7
Suburban	98,484	130,757	32.8
Study Area	3,022	20,187	568.0

Since 1980, the Study Area has continued to grow. It remains one of three areas in Shelby County with the highest volume of building activity. The growth of population in the Study Area is dependent on development trends. These trends indicate that the population will continue to increase at a decreasing rate until most of the vacant land is developed. Table 3 shows the projected annual population for the Study Area and indicates an ultimate population of over 53,333 in 1997.

In 1987 it has been estimated that there are 18,161 housing units in the Study Area. Almost 60 percent of these units are classified as single-family. Of the total acres of vacant land in the Study Area, nearly 60% is zoned for, or is planned for, development in industrial or commercial uses. Low density residential zoning, (single-family) accounts for 14% of the vacant land while higher density residential, (attached or multi-family) accounts for 16%. It is assumed that the agricultural land (13% of the total vacant land) will be developed for a variety of uses including residential, commercial and industrial. An estimate of housing units to be built in the next ten years is shown on Table 3.



TABLE 3: PROJECTED ANNUAL POPULATION AND HOUSING UNITS

1987-1997

I-----I		I-----I-----I-----I-----I					
I		I		Number of Housing Units		I	
I		I		I-----I-----I-----I-----I		I	
I Year	I Population	I Single-	I Multi-	I	I	I Total	I
I	I	I Family	I Family	I	I	I	I
I-----I-----I-----I-----I		I-----I-----I-----I-----I					
I 1987	I 40,024	I 10,831	I 7,330	I	I	I 18,161	I
I 1988	I 41,356	I 11,023	I 7,866	I	I	I 18,889	I
I 1989	I 42,687	I 11,215	I 8,402	I	I	I 19,617	I
I 1990	I 44,018	I 11,407	I 8,938	I	I	I 20,345	I
I 1991	I 45,348	I 11,599	I 9,474	I	I	I 21,073	I
I 1992	I 46,679	I 11,791	I 10,010	I	I	I 21,801	I
I 1993	I 48,010	I 11,983	I 10,546	I	I	I 22,529	I
I 1994	I 49,341	I 12,175	I 11,082	I	I	I 23,257	I
I 1995	I 50,672	I 12,367	I 11,618	I	I	I 23,985	I
I 1996	I 52,003	I 12,559	I 12,154	I	I	I 24,713	I
I 1997	I 53,333	I 12,749	I 12,694	I	I	I 25,443	I
I-----I-----I-----I-----I		I-----I-----I-----I-----I					

## EXISTING LAND USE

The Southeast Memphis Study Area encompasses approximately 9,984 acres of land. Developed land accounts for 5,734 acres, or 57% of the total area.

As is typical in most metropolitan areas, residential development accounts for the largest percent of land used. Approximately 57% of the developed land is composed of 10,831 single-family housing units (3,288 acres). Although there are a substantial number of multi-family units (7,330) throughout the area, these units account for only about 10 percent of the developed land area. Duplex homes comprise approximately 4% of the developed land area. Residential land uses account for approximately 71% of all developed acres.

The land in the vicinity of the intersection of Winchester Road and Hickory Hill Road was designated as an urban center in the last two comprehensive plans for Shelby County. Since that time the Hickory Ridge Mall, which serves the regional population of Shelby County, was located at that intersection and has attracted additional commercial investment to the area. Outside the designated urban center, commercial activity is scattered throughout the study area on major roads. At the present time, approximately 7% percent (416 acres) of the developed area consists of commercial development.

Almost 860 acres of land are currently used by industry within the Study Area. The industrial activity included is clustered in two areas: the area surrounding the intersection of Mendenhall and Raines Roads and the area south of Shelby Drive between Mendenhall and Hickory Hill Road. Industrial uses make up 15% of the developed land area.

Public facilities in the area include an undeveloped park site on Flowering Peach Road, Ross Road Park which is improved with school playground

facilities, Fire Station #52 on Winchester, and an undeveloped fire station site on Hickory Hill Road near Raines Road. Five schools are included: Capleville, Crump and Ross Elementary Schools, Kirby Middle School and Kirby High School. Also a MLG&W pumping station is located near Hickory Hill Road and Winchester. These facilities and a small amount of private park acreage account for about four percent of the developed land.

Institutional uses, (churches and related activities), account for 182 acres or 3% of the developed land.

Approximately 973 acres of the Study Area (10%) are taken up by roadways and the Burlington-Northern railroad yard and is not available for development. Vacant land that may be available for development accounts for 33% (3,277 acres) of the Study Area acreage. By comparison total vacant land in the City of Memphis (33.6%) is approximately the same as that in the Study Area.

Table 4 presents a summary of existing land use in the Study Area and Map 2 provides the land development pattern.

TABLE 4: SUMMARY OF EXISTING LAND USE  
SOUTHEAST MEMPHIS ANNEXATION STUDY AREA  
1987

LAND USE	ACRES	PERCENT OF DEVELOPED ACRES	PERCENT OF TOTAL ACRES
Residential	4,048	70.6%	40.5%
Single-Family	3,288	57.3%	32.9%
Duplex	202	3.5%	2.0%
Multi-Family	558	9.7%	5.6%
Commercial	416	7.3%	4.2%
Industrial	860	15.0%	8.6%
Institutional	182	3.2%	1.8%
Parks*	76	1.3%	0.8%
Public Land	151	2.6%	1.5%
TOTAL DEVELOPED ACRES	5,734	100.0%	57.4%
Transportation	973	N/A	9.7%
Vacant	3,277	N/A	32.8%
TOTAL ACRES	9,984	N/A	99.9%

\* Parks includes both public and private facilities.

\*\* Totals may not agree do to rounding.

Source: Memphis and Shelby County Office of Planning and Development, Field Surveys, 1987.

## GROWTH POTENTIAL

Growth in the Southeast Memphis area is expected to occur in all sectors: residential, commercial and industrial. Approximately 1,000 acres of vacant land is available for residential uses, (some agriculturally zoned land is included in this category). It is expected that about 60% of this land will develop as a mix of single-family and multi-family units. Additionally, existing subdivided lots for single-family detached and attached homes are located in the area. The existing lots and developable vacant land is expected to produce a net gain in housing units, over the ten year study period, of 5,200 units. Single-family development is expected to account for 1,900 units and multi-family, 3,200 units.

The Hickory Ridge Mall at the southeast corner of Hickory Hill and Winchester is already the third largest shopping mall in the Memphis area. The mall was completed in 1981 and is an attracting force for development in the area. A recently completed addition added 150,000 square feet to the 714,000 square foot mall making the gross area over 850,000 square feet. Community and neighborhood commercial centers are located at Hickory Hill and Knight Arnold Roads, Hickory Hill and Mount Moriah Roads, Winchester and Mendenhall and Winchester and Kirby Parkway. A new commercial development is under construction on the southeast corner of Germantown Road Extended and Shelby Drive.

Vacant land zoned commercial and office totaled approximately 635 acres in 1987. It is projected that approximately 50 percent (317 acres) of the vacant commercial and office land will be developed over ten years. The commercial development will be primarily community and neighborhood oriented.

Industrial development is expected to occur in the southwestern section of the study area. Most of the vacant industrially zoned vacant land is located in the vicinity of the Hickory Hill Industrial Park, Sharp Manufacturing, and the Burlington Northern Railroad. There are approximately 1,200 acres of zoned industrial land available to support industries within the study area. Additional rezoning of vacant agricultural and other lands to an industrial classification is anticipated.

Over the ten year study period it is anticipated that a substantial amount of this existing zoned land will be absorbed for industrial activities. Industrial expansion is expected to be in light manufacturing, wholesale trade and warehousing.

### III. URBAN SERVICE NEEDS

The Southeast Memphis Study Area is receiving the majority of its services at a rural level through the County government and Shelby County School Board. As stated previously, the Study Area is more densely populated than the City of Memphis as a whole, indicating that the residents of the area should be receiving a comparable level of urban services. If the area is annexed, the City of Memphis will make extensive improvements in recreational facilities, fire and police services, streets, street lighting, drainage and other public works projects.

#### FIRE AND EMERGENCY SERVICES

##### Fire Protection

Fire protection in the Southeast Memphis Study Area is at present provided by the Shelby County Fire Department. Station #52, at 6675 Winchester Road, was built by the City in 1975 in anticipation of future annexation. An additional site was acquired by the City in 1974 on Raines Road near Hickory Hill for a future station. In previous annexation studies of this area, the Memphis Fire Department indicated that the area could be served by the City occupying Station #52 and constructing a new station near Raines and Hickory Hill Roads. However, because of the substantial growth in housing and population within the Study Area, Station #52 and two additional stations are needed to provide service in accordance with City standards.

The current service provided by Shelby County consists of one station located at 6675 Winchester Road (City Station #52) serving an area of 27.5 square miles from Germantown Road Extended west to Tchulahoma Road. The portion of the Study Area east of Germantown Extended is served by County Station #2 located within the City of Germantown at Poplar Pike and Forrest Hill Irene Roads. County Station #2 serves approximately 50.4 square miles. Table 5 compares the area covered currently by the County stations as compared to the area proposed to be covered by the three new City stations.

The average response time for fire calls responded to by the Shelby County Fire Department (County-wide) is 6.83 minutes. The average response time for the Memphis Fire Department (City-wide) is under 5 minutes. Response time to the annexed area will be considerably faster after annexation. Table 6 compares County response times to City response times at specific locations in the Study Area.

The Southeast Memphis Study Area includes such facilities as the Hickory Ridge Mall, medium-rise senior citizen housing, major industries such as Stroh's, Hickory Hill Industrial Park and Sharp Manufacturing and many places of public assembly such as churches and elementary schools. It is important to note that the County Fire Division does not have aerial apparatus to fight fires which may occur in buildings over four stories in height. Memphis will be able to provide this type of equipment quickly, as a standard response. These types of high hazard land uses demand the level of service provision that the City of Memphis can provide.

TABLE 5: FIRE STATION COVERAGE

STATION	AREA COVERED
County Station #3	27.5 Sq. Miles
County Station #2	50.4 Sq. Miles
City Stations #52, #53 & #55	15.6 Sq. Miles

TABLE 6: COMPARISON OF FIRE RESPONSE TIMES

LOCATION	COUNTY	PROPOSED CITY	CITY STATION
Hickory Hill & Raines	5:18	2:00	#53
Hickory Hill & Shelby Drive	7:18	2:00	#53
Hungerford & Outland	11:48	2:10	#50
Germantown Ext. & Shelby Drive	5:15	:20	#55
Germantown & Shelby Drive	5:35	1:50	#55
Germantown and Holmes Road	8:00	1:55	#53
Shelby Drive & Clarke	8:05	1:05	#53
Mendenhall & Raines	7:05	2:10	#53
AVERAGE RESPONSE TIMES	7:48	1:36	N/A

Upon annexation, the City will occupy Station #52 on Winchester Road and construct two new fire stations. One will be built at a city-owned site near Clarke and Raines Roads (#53) and another will be constructed in the vicinity of Germantown Road Extended and Cutter Mill Road (#55). In order that the public may be adequately served, temporary fire stations will be constructed on the sites to serve the area immediately after annexation.

County Fire Stations 2 and 3 currently have one pumper each and one 4-wheel off-road vehicle and one reserve pumper between the two stations available to fight fires. These units are generally equipped to respond only to house and grass fires. The County provides one pump operator, one officer and one fire fighter per house fire. The officer and the fire fighter compose the complement which must extend the fire hose, handle the hose lines, conduct search and rescue and cut off utilities.

Fire Stations #52 and #55 will house a pumper and snorkel. Station #53 will house a pumper and a battalion chief. The pumper and snorkel companies will have four personnel assigned to each apparatus. The City will send two pumpers, one aerial or snorkel truck and one battalion chief to each fire incident. The total complement of City personnel per incident will be 13. As in other areas of the City, the annexation area will receive back-up units from fire stations located adjacent to the area.

Services other than fire protection that are offered by the Memphis Fire Department include fire prevention and inspection services such as commercial and industrial fire training, health care facility fire training, school fire prevention programs, home inspection, free smoke detector installation for the elderly, invalid listing and engineering services in relation to construction fire code compliance. The Fire Department also offers an on-going fire hydrant maintenance program and service to persons who require constant electrical service during power outages.

#### Emergency Services

Emergency Medical Service is currently provided to the Study Area by Medic Ambulance through contract with the County. Service is provided from either a unit stationed within the City Limits of Germantown or from Medic's garage facility located on Tchulahoma Road within the City of Memphis. The average response time for ambulance service by the County is 10.4 minutes (County-wide) and 15.0 minutes in the Southeast Memphis Annexation Area.

Paramedic service is provided intermittently by the County contractor, depending on the responding station and availability of qualified personnel. The increased traffic congestion in this area, the high incident of traffic accidents in many locations and the distance between the study area and hospitals with emergency rooms (in particular the MED's Trauma Center) dictate that residents of this area should receive urban level ambulance service. It should be noted that two major industries in the Study Area, Stroh's Brewery and Sharp Manufacturing have contracted with the Memphis Fire Services Division to supply ambulance service to their respective companies. This is to assure that they receive quick response should an emergency arise.

Emergency medical services will be provided from two of the three stations to be located within the annexation area (#52 and #53). This will require the purchase of two emergency units. Two state certified paramedics will be assigned to each ambulance. Emergency medical services will also be available from stations adjacent the area. The average response time for emergency service in the City of Memphis is 5.5 minutes. The Division of Fire Services estimates that their average response time to emergency calls in the Southeast Memphis Study Area will be less than 3 minutes.

Table 7 presents a comparison of County ambulance response times to that of proposed City service to selected locations within the Study Area.

TABLE 7: COMPARISON OF AMBULANCE RESPONSE TIMES

LOCATION	PROPOSED	
	COUNTY	CITY
Hickory Hill & Raines	15:18	2:00
Hickory Hill & Shelby Drive	17:18	2:00
Germantown & Winchester	6:24	2:24
Germantown & Barnstable	8:18	4:25
Ross Road Elementary	13:12	5:15
Mendenhall & Shelby Drive	19:18	1:45
Raines & Kirby Parkway	10:12	3:00
AVERAGE RESPONSE TIMES	15:00	3:00

#### POLICE SERVICES

The Shelby County Sheriff's Office is currently providing law enforcement patrols in the Study Area. The Sheriff's Office has three to five cars on duty to cover the entire unincorporated area from Airways Boulevard to the Fayette County line, which encompasses more than 50,000 people over 65 square miles.

Following annexation the Memphis Police Department will assign at least two patrol units per shift, (one unit = two cars), within the annexation area (15.6 square miles) to perform those duties. Between the hours of 6:00 P.M. and 2:00 P.M., an additional two (2) patrols will be on duty, bringing the number of cars to 8 in the area. The City of Memphis Police patrols will utilize units from the Parkway Village area of the City as back-up units.

The Memphis Police Department, through its computerized dispatching system, quickly bring to the scene of, vast resources to contain and control a major disturbance. These resources include between 75 and 120 patrol units depending upon the time of day, in addition to the specialized units of the department. This concentration of services will result in a much improved level of protections for the residents of the Study Area.

The City of Memphis Police Department will provide many services that will result in a significant improvement over and above the services currently being provided by the Sheriff's Department. These services are provided as a result of Memphis' position as a large metropolitan law enforcement agency. Due to the low demand for these services in small communities and the relatively high cost of provision, these services are traditionally available only through large agencies.

A partial list of these services includes: the aviation squad (an emergency Medivac unit and response team for the location and apprehension of criminals or lost/abducted individuals); the integrated criminal apprehension program; computerized communication system; the canine squad; comprehensive

neighborhood watch program; Police Service Technicians and marked traffic units, hostage negotiation team; and, the soon to be implemented crisis intervention team. The East Precinct, which will service the Study Area, houses its own investigative branch of detectives. The City Police Department offers numerous crime prevention programs such as personal safety, child safety, robbery prevention and a comprehensive neighborhood watch program.

## PARKS AND RECREATION

There are two park sites within the annexation area, one owned by the Memphis Park Commission and the other by the Shelby County Conservation Board. Flowering Peach Road and Ross Road Parks are the existing sites. Flowering Peach Park, owned by the City, is undeveloped. Ross Road Park is equipped with playground facilities for Ross Road Elementary School.

The Park Commission has determined that the existing large urban parks, Fox Meadows and May Parks, and the anticipated acquisition of 262 acres of parkland by the City and County located at Shelby Drive and Forest Hill Irene Road, are sufficient to serve the population's regional park needs over the next ten years. Fox Meadows and May Park are located within 2.5 miles of the center of the annexation Study Area, and the planned acquisition site is within 5.5 miles of the center of the Study Area. The two existing large urban parks have facilities for golf, swimming, ball fields, tennis and playgrounds.

However, the Study Area lacks a sufficient number of neighborhood parks and community centers to serve its growing population. The Memphis Park Commission recommends that in addition to two of the parks listed above six new neighborhood parks should be constructed for residents of the Study Area. Neighborhood parks range in size from a minimum of five acres to a maximum of twenty acres. The City of Memphis will construct five neighborhood parks, each twenty acres in size, and one ten acre neighborhood park. In addition, the 8.9 acre Flowering Peach Park will be developed to serve the the population of its neighborhood. Each neighborhood park serves a radius of one-half mile and allocates 10 acres of parkland per 4,000 residents. The neighborhood parks will offer such facilities as tot lots, play apparatus, sports fields, paved multi-purpose courts, passive recreation areas and parking. Each park will be appropriately landscaped. The parks will offer the full array of recreation programming currently offered to City residents.

In addition, two recreational community centers will be constructed to serve the Southeast Memphis Study Area. These community centers are each designed to served 20,000 - 25,000 residents and will offer a wide range of indoor recreational activities. The community centers will be used by children, as well as adults and senior citizens. Programs offered at existing Memphis recreation centers will be available at the new facilities.

Recreational facilities comparable to the facilities that will be acquired and built by the City of Memphis are currently not available to area residents within close proximity of their homes. The 8.5 acre park at Ross Road does offer some playground equipment, however, it is significantly inadequate to serve the growing population. In addition, summer programs offered at the park are operated by the Memphis Park Commission. The nearest Shelby County



Conservation Board parks outside of the area that offer neighborhood park facilities are Whitten Heights, a 10 acre neighborhood park located 13.5 miles to the north and Plough Recreation Area, located at Shelby Farms 12 miles to the north of the Study Area.

#### EDUCATIONAL FACILITIES

Five school facilities currently operated by the Shelby County Board of Education are located within the Southeast Memphis Study Area. Three of the facilities are elementary schools; Capleville, Crump, and Ross. Kirby Middle School and Kirby High School are the other two facilities. There are approximately 7,350 students from the Study Area that attend County Schools with an additional 1,080 students in the northwest corner of the study area currently assigned to City Schools under a 1976 School Service Agreement between Memphis and Shelby County. The existing County schools will become part of the Memphis City School system in the 1988-89 school year.

The Memphis City School system will construct one elementary school within the first five years after annexation to serve the children of the area.

The Memphis City School system currently spends approximately \$317 more per student than does the County system. These funds are utilized to provide such services as specialized programs for the intellectually gifted (CLUE), optional schools (performing arts, medical/engineering, open education, pre-engineering, etc.), the Orff music program, specialized programs for the handicapped, and programs for students who are at risk academically. All of these programs will be available to the students in the Study Area.

#### SANITATION SERVICES

The County does not provide any type of garbage pickup in the Study Area. All current sanitation services are contracted by residents with private firms. Annexation of the area will bring scheduled twice weekly curbside garbage collection and weekly curbside trash pick-up services from the City Sanitation Division.

Area residents will be provided with the same curbside pick-up system utilized throughout the City. Each residence, other than apartments, will be provided with a garbage cart. Commercial and industrial uses will continue to be served by a private sanitation service. Other sanitation services provided by the City include regularly scheduled street sweeping, the cutting of weeds on rights-of-way and vacant lots, clean-up of illegal dumping, collection of roadside litter, and the provision of litter containers at areas of high pedestrian density.

#### STREET IMPROVEMENTS AND LIGHTING

The City of Memphis, as a municipal government, is uniquely qualified to administer to the complexities of an urban transportation system. The road system and high traffic volumes in the annexation Study Area dictate an urban level of service provision that is not currently being provided by County

government. The health and safety of the residents of the area is of major concern because of the inadequacies of traffic control and street maintenance.

Increased traffic congestion throughout the Southeast Memphis Study Area requires the installation of traffic control signs and new traffic signals at several intersections. Additionally, as stated previously, marked traffic units and Police Service Technicians will be assigned to the Study Area to improve traffic flow. It should be noted that the traffic signals that are currently in place in the Study Area are maintained by the City of Memphis Division of Public Works under contract to the County. Public Works maintains these signals because of its personnel's expertise and quick response to emergency repairs.

Table 8 illustrates the increased traffic build-up that occurred in the Study Area during the period 1981 through 1986. Since the 1984 study of this area, traffic flow has increased dramatically on many of the major roadways.

Extensive street improvements are slated for the Study Area. This work is to cover right-of-way acquisition, pavement, curbs, gutters and widening of various road segments. Major projects include improvements to: Clarke, Raines, Mendenhall, Ridgeway, Kirby Parkway, Mount Moriah Extended, Shelby Drive, Hickory Hill, Ross, Crump, and Germantown Roads.

Following annexation, the City will assume responsibility for maintaining all dedicated public roads within the affected area. Regularly scheduled maintenance will help to alleviate deteriorated roadways throughout the annexation area.

Because of the density of urban development, as well as the large number of school aged children in the area, street lights are essential for safety. Street lights will be installed to provide for the protection and safety of residents and visitors to the area. In developed areas, street lights will be installed and serviced by the City within three years of annexation.

Sidewalks are required along certain streets according to the Memphis and Shelby County Subdivision Regulations. Developers contribute to a sidewalk fund at the time of subdivision, and the sidewalks are installed by either the City or County when the homes of a development are substantially complete. Funds currently deposited with the County by developers for sidewalk improvements in the Study Area will be transferred to the City and construction will be scheduled in accordance with City Sidewalk construction policies.

TABLE 8: MID-BLOCK TRAFFIC COUNTS  
SOUTHEAST MEMPHIS ANNEXATION AREA  
1981-1986

LOCATION	1981 VOLUME*	1984 VOLUME	1986 VOLUME	% CHANGE 1984-86	% CHANGE 1981-86
GERMANTOWN ROAD (Btwn. Holmes and Shelby)	2,870	5,090	6,720	32.0%	134.1%
SHELBY DRIVE (Btwn. Getwell and Lamar)	5,460	13,360	21,780	63.0%	298.9%
WINCHESTER ROAD (Btwn. Ross and Germantown)	10,720	19,190	25,790	34.4%	140.6%
SHELBY DRIVE (Btwn. Hungerford and Hickory Hill)	7,200	16,430	17,390	5.8%	128.2%
HICKORY HILL (Btwn. Raines and Winchester)	6,280	8,020	14,500	80.8%	130.9%

\* Average Daily Traffic Count volume for a 24 hour period.

Source: 1986, 1984, 1981 Traffic Reports, Memphis and Shelby County Office  
of Planning and Development for the Metropolitan Planning  
Organization.

## SEWERAGE

The City of Memphis owns and maintains the interceptor and collector lines within the Study Area. Wastewater from the annexation area is treated at the City's South Treatment Plant. The system will be improved as required to meet the City's standard for construction of sewer lines.

The financial analysis in Chapter IV of this report does not include the cost of providing sewer service. Sewer line extensions are financed by a special sewer fund which does not receive tax revenues. User fees are the primary source of funds to extend sewer lines. Annexation will have almost no effect on sewer fund revenues.

## WATER, ELECTRIC AND GAS SERVICE

The water lines in the Study Area are owned and maintained by the Memphis Light, Gas and Water Division. Mains and hydrants will be installed as required to meet the City's higher level of standards for fire protection. Fire hydrants in areas that receive a Class 6 rating from the ISO are required to provide a minimum water flow of 500 gallons per minute. City standards require that the water flow from the hydrants be at least 2,000 gallons per minute. An ISO rating of Class 2 requires that fire hydrants be located a minimum of 500 feet apart.

Electrical and gas service in the Study Area is provided by the Memphis Light, Gas and Water Division. Annexation will have no effect upon this service.

## LAND USE CONTROLS

The Office of Planning and Development conducts the comprehensive planning and zoning administration for both Memphis and Shelby County. The Office of Planning and Development will continue to perform the same functions for the annexation area following annexation as it did before. Similarly, the Land Use Control Board and the Board of Adjustment, which serve both the City and the County governments, will continue to perform the same functions following annexation.

Presently, zoning changes, planned unit developments and sewered subdivisions proposed in the Southeast Memphis Annexation Study Area require approval from both the City of Memphis and Shelby County legislative bodies. Following annexation, only approval of the Memphis City Council will be required. The joint zoning regulations now in effect will continue within the annexed area.

## OTHER PUBLIC SERVICES

### Animal Control

In addition to the previously described urban services, the City of Memphis will provide animal control services to the annexed area. This will include enforcement of Memphis dog licensing and leash laws, complaint response, rabies vaccinations for dogs and cats and other animal control activities.

## Motor Vehicle Inspection

Upon annexation, motor vehicle inspection will be provided to the annexed residents. This will include emissions control inspection, as well as a safety check of each vehicle.

The vehicle inspection program is important for several reasons. First, the quality of life of residents both within and outside Memphis is affected by the quality of air. Vehicles from the metropolitan area travel the roadways of the City everyday, and they do not have to comply with emissions control testing. The increased number of vehicles that will be inspected by the City as a result of annexation will help to lower pollution levels in the area, thus improving the quality of life and health of Shelby County residents.

Second, the City of Memphis' ability to qualify for some types of federal funds from agencies such as the Department of Transportation, Environmental Protection Agency (EPA) and the Economic Development Administration is impacted by the air quality of the metropolitan area. Memphis must comply with various regulations of the EPA in order to be allowed to accept this funding. A majority of these types of funds are used for capital improvement projects that are used by residents of both the City and the County, such as highway and sewer construction funds.

Third, the attraction of new industry may be impacted if the level of air quality is unacceptable. These sanctions include the loss of federal sewage treatment funds and a ban on construction of industrial plants and facilities.

## Emergency Management

Emergency Management Services will install 4 emergency warning sirens at the following approximate locations Flowering Peach and Clarke Roads, Knight Arnold and Damon Roads, Germantown Road and Birch Run Lane and Germantown Road and Germantown Lane. These sirens are used in the case of major disasters such as tornadoes to warn of impending danger.

#### IV. RELATIONSHIP TO THE "MEMPHIS 2000 POLICY PLAN"

In 1981 the Memphis City Council and the Shelby County Board of County Commissioners adopted the "Memphis 2000 Policy Plan" as a guide for the physical development of the City and the County during the remainder of the twentieth century. The Southeast Memphis Annexation Area Study, therefore, addresses the Memphis 2000 Policy Plan. The following policies have a bearing on the possible annexation of the Southeast Memphis area:

POLICY-33: PUBLICLY FUNDED URBAN LEVEL SERVICES WILL NOT BE PROVIDED OUTSIDE THE URBAN SERVICES BOUNDARY AS DESIGNATED ON THE MEMPHIS 2000 PLAN MAP.

The Southeast Memphis annexation Study Area boundaries are wholly within the urban services boundary. The area has developed at such a rapid pace over the past ten years that the demand for urban level services cannot be met adequately by County government. The current level of need and the anticipated future level of need, particularly in the areas of health and safety, demands urban level services.

POLICY-38: DESIGNATED URBAN CENTERS WILL BE AT CENTRALIZED LOCATIONS FOR PROVIDING A VARIETY OF SERVICES IN CLOSE PROXIMITY TO THEIR SERVICE POPULATION AND WILL BE DEVELOPED WITH A MIXTURE OF RESIDENTIAL, COMMERCIAL, GOVERNMENTAL AND OFFICE USES,.... EXISTING URBAN CENTERS LOCATED AT CBD-MEDICAL CENTER, RALEIGH SPRINGS CENTER, WHITE STATION/LAURELWOOD CENTER, WHITEHAVEN-SOUTHLAND CENTER, AND HICKORY HILL CENTER ARE DELINEATED BY EXISTING COMMERCIAL AND OFFICE ZONING AND MAY BE EXPANDED.

POLICY-39: AN URBAN CENTER WILL BE DESIGNATED IF IT MEETS THE FOLLOWING CRITERIA:

A. LOCATED AT THE INTERSECTION OF A TRANSITWAY AND A MAJOR ROAD.

B. INCLUDES A REGIONAL CENTER WITH A MINIMUM OF 750,000 SQUARE FEET.

C. HAS THE POTENTIAL FOR EXPANDING IN EITHER AREA OR DENSITY.

Hickory Ridge Mall is the focus of the "Hickory Hill Urban Center". The Mall with the new addition contains over 850,000 square feet and is complemented by numerous major commercial developments. The Hickory Hill Post Office serving Zip Codes 38115 and 38125 is located adjacent to the Mall. Higher density residential projects have concentrated in proximity to the urban center, further increasing the density of this core area. An implementation of Policy 39 calls for the review and coordination of governmental services to reinforce the Urban center. In order to properly promote increased residential densities and intense non-residential development, the level of services must

be raised above the rural level currently provided by Shelby County. Annexation of the area will permit the development of the Urban Center to its full potential.

POLICY-55: ANNEXATIONS BY THE CITY OF MEMPHIS WILL BE COORDINATED WITH THE EXTENSION OF FACILITIES; THE EXTENSION OF FACILITIES TO AN UNINCORPORATED AREA WILL GIVE RESIDENTS NOTICE OF THE CITY'S INTENT TO ANNEX.

Currently, 14 percent of the children living within the Southeast Memphis study area attend Memphis City Schools through an agreement with the Shelby County Board of Education. Additionally, the Memphis Fire Services and Police Divisions provide services on an emergency case basis. The Southeast Memphis area receives water services through lines owned and maintained by MLG&W and unlike many other areas of unincorporated Shelby County, the residential sections of the Study Area are sewered. In addition the City owns and leases a fire station to Shelby County. The fire station site was acquired and built by the City in anticipation of the its need to provide urban level services in the area.

POLICY-56: ANNEXATION STUDY AREAS WILL BE DELINEATED TO REDUCE ANNEXATION OF LARGE TRACTS OF FARMLAND OR VACANT LAND.

The pattern of leapfrog development within the Study Area necessitates the inclusion of some undeveloped land to implement the above Policy 55. Approximately thirty-six percent of the total Study Area (3,277 acres) is considered vacant or agricultural land. There are several large tracts of vacant land (over 100 acres) within the Study Area boundaries. However, the vacant land is largely encircled by existing residential and commercial development and by the existing Memphis city limits; approximately 60 percent of the vacant land is zoned for or is approved for non-residential land uses.

POLICY-69: ALL GOVERNMENT AGENCIES WILL PROVIDE ADEQUATE SERVICES TO RESIDENTS OF SHELBY COUNTY.

The Plan of Services (Appendix B) addresses each of the services that the City of Memphis will provide to residents in the Southeast Memphis Study Area. The City intends to provide services and facilities such as police and fire protection, sewer and water lines, park and recreation facilities, schools, street maintenance and street lighting. These services will be provided on the same basis and on the same urban level as current City residents receive.

POLICY-106: THE CONTIGUOUS EXTENSION OF FACILITIES WILL BE PROMOTED.

The proposed annexation area is contiguous to existing and proposed areas of major residential commercial and industrial development. The northern and western boundaries are the Memphis City limits. The eastern boundary and the southeastern boundary follow lines of major subdivisions either fully developed or substantially constructed.

## V. FINANCIAL ANALYSIS

### REVENUE ANALYSIS

Annexation of the Southeast Memphis Study Area will result in additional revenues for the City of Memphis from the following sources:

- 1) property tax revenues, based on assessed valuation;
- 2) state-shared revenues, based on population as determined by a census of the annexed area;
- 3) city service fees, gross receipt taxes, auto fees and telephone franchise taxes based on the number of housing units;
- 4) state aid and distribution of funds for education based on the number of public school students; and
- 5) local option sales tax revenues from this area.

Revenues are estimated in Table 9 for fiscal year 1989 through fiscal year 1993. Growth of the revenue base was projected according to population and housing growth as shown in Table 3. All tax rate and distribution formulas were assumed to continue unchanged during the period. The revenue estimates are of course subject to many uncertainties, such as the impact of the economy upon state-shared taxes and upon the rate of growth in the area.



TABLE 9: FIVE YEAR REVENUE ANALYSIS  
SOUTHEAST MEMPHIS ANNEXATION AREA  
FISCAL YEARS 1989 - 1993

GENERAL FUND REVENUES

Property Tax	\$19,263,821
Automobile Fees	\$ 4,156,551
State Shared Revenues	\$11,482,050
Telephone Franchise Fees	\$ 1,003,089
City Service Fees	\$ 2,643,156
Local Sales Tax	\$12,478,852
Gross Receipts Tax	\$ 687,693
TOTAL GENERAL FUND	\$51,715,213

SCHOOL REVENUES

Property Tax	\$10,498,273
Net Local Sales Tax Loss	\$ 9,608,716
TOTAL SCHOOL REVENUES	\$ 889,557

DEBT SERVICE REVENUES

Property Tax	\$ 3,975,074
State Shared Tax	\$ 4,982,776
TOTAL DEBT SERVICE REVENUES	\$ 8,957,851

TOTAL REVENUES FROM ALL SOURCES \$61,562,621

## COST ANALYSIS

Projected costs for the first five years following annexation are presented in Table 10 (Capital Costs) and Table 11 (Operating Costs). Only those costs are included that would represent major additional commitments for service and facilities from the City of Memphis due to annexation. Excluded are costs related to services that are now provided by the City beyond its corporate limits and reimbursed through user charges or other agreements. Also excluded are those services provided County-wide in which Memphis shares the costs with Shelby County government.

Costs were determined by a survey of all City agencies directly affected by the proposed annexation. Each agency was asked to provide capital costs by project and operations and maintenance costs by category. To insure compatibility, all costs are shown in 1987 dollars.

### Capital Costs

The capital costs presented in this analysis represent estimates and projections of additional expenses that would be incurred as a result of annexation. They should not be considered to be specific budget items for any specified fiscal year. A number of projects, particularly road construction and drainage improvements, may be accomplished through the private land development process. Capital costs are generally financed through General Obligation Bonds and financed over 20 years. The capital cost analysis reflects the annual debt service requirements of these bonds.

The five year total of debt service obligation for the Southeast Memphis Annexation Area is presented in Table 10.

### Operating Costs

Operating costs are presented as estimates and projections of the additional expense that will be incurred by the City in the provision of services to the Study Area. These costs are based upon such factors as number of households, types of households, projected growth of housing, population and non-residential uses and the number of miles of streets and infrastructure in the Study Area.

Operating costs are subject to adjustment based on changes in the factors listed above. These projected costs should not be considered to be specific budgetary items. The projected operating costs have a direct impact on the general revenue fund of the City. The estimated five year operating costs are presented in Table 11.

TABLE 10: FIVE YEAR CAPITAL COST ANALYSIS  
SOUTHEAST MEMPHIS STUDY AREA

AGENCIES

FIRE SERVICES	\$ 4,078,000
POLICE SERVICES	\$ 539,800
PARK COMMISSION	\$ 4,179,900
SANITATION	\$ 1,466,944
PUBLIC WORKS	\$11,287,000
PUBLIC SERVICES	\$ 98,240
TOTAL CITY AGENCIES	\$21,649,884
BOARD OF EDUCATION	\$ 2,100,000
.....	.....
TOTAL CAPITAL COSTS	\$23,749,884
.....	.....
DEBT SERVICE REQUIREMENT *	
City	\$ 6,088,361
Board of Education	560,463

\* Debt service requirement includes long term (20 year) bonds Capital Improvement Projects and short term bonds for capital equipment.

TABLE 11: FIVE YEAR OPERATING COST ANALYSIS  
SOUTHEAST MEMPHIS STUDY AREA

GENERAL FUND

Police Services	\$ 5,313,870
Fire Services	\$17,350,925
Park Commission	\$ 1,030,400
Sanitation	\$ 7,335,084
Public Works	\$ 6,524,873
Public Services	\$ 483,427
TOTAL GENERAL FUND	\$38,038,579
<hr/>	
BOARD OF EDUCATION	\$12,513,391
<hr/>	
TOTAL OPERATING COSTS	\$50,551,970

## FUND BALANCE ANALYSIS

The financial impact of annexation of the Southeast Memphis Annexation Area will be positive for the City after the first year following annexation. Revenues are obtained from a variety of sources and allocated to three general categories - General Fund, Board of Education, and Debt Service. This analysis shows that the Board of Education revenues versus expenditures show a negative impact. For Fiscal Years 1989-1993 it is estimated that the City will receive \$4,361,827 more than its estimated expenditures over the same period as a result of the annexation.

The General Fund is used to finance the daily operations of the City. Increased revenues to this account due to annexation will be reduced by any increases in operating expenses. Over the five year period following annexation, it is estimated that \$38,038,579 of the increased General Fund revenues will be required to finance increased operating expenses. This provides the City with an estimated \$13,676,634 surplus of General Fund revenues.

The Board of Education has an intricate funding procedure shared among State, County, Federal and City governments. When combined with the increased local fund expenditures for students presently served by the County, and the debt service allocated to the annexed area for a new elementary school, the net loss to the Board of Education is \$12,184,297.

It is estimated that the portion of the property tax allocated to Debt Service will generate \$8,957,851 over Fiscal Years 1989-1993. The increased debt service due to annexation for the same years is \$6,088,361. This provides the City with an estimated Debt Service Fund balance of \$2,869,490.

Table 12 presents a five year summary of the impact on City finances as a result of this annexation.

TABLE 12: FIVE YEAR IMPACT ON FUND BALANCES  
SOUTHEAST MEMPHIS STUDY AREA

GENERAL FUND

Revenues	\$51,715,213
Expenditures	\$38,038,579
Fund Balance	\$13,676,634

BOARD OF EDUCATION

Revenues	\$ 889,557
Expenditures*	\$13,073,854
Fund Balance	(\$12,184,297)

CAPITAL IMPROVEMENT PROGRAM

Debt Service Revenues	\$ 8,957,851
Debt Service Expenditures	\$ 6,088,361
Fund Balance	\$ 2,869,490

TOTAL NET IMPACT ON FUND BALANCES	\$ 4,361,827
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\* Board of Education expenditures include annual debt service.

APPENDIX A

LEGAL DESCRIPTION

SOUTHEAST MEMPHIS ANNEXATION AREA  
STUDY AREA #33

## SOUTHEAST MEMPHIS

## ANNEXATION-AREA 33

Beginning at a point in the existing Memphis City Limits, said point being the intersection of the southerly right-of-way line of Shelby Drive with the northwesterly right-of-way line of the Texas Gas Transmission Line Easement; thence in a generally northeasterly direction following the existing Memphis City Limits and the northwesterly right-of-way line of the Texas Gas Transmission easement to its intersection with the southwesterly right-of-way line of Hungerford Road; thence southeastwardly with the existing Memphis City Limits and the southwesterly right-of-way line of Hungerford Road to its intersection with a westward projection of the northerly right-of-way line of Raines Road; thence easterly with the existing Memphis City Limits and along said westward projection and the northerly right-of-way line of Raines Road to its intersection with the centerline of John's Creek; thence northwardly with the existing Memphis City Limits and the centerline of John's Creek to a point on the southerly property line of the Winchester Lake Park, P.U.D. Subdivision; thence eastwardly with the existing Memphis City Limits and the southerly property line of the Winchester Lake Park, P.U.D. Subdivision to a point on the southeast corner of said subdivision; thence northwardly with the existing Memphis City Limits and the easterly property lines of the Winchester Lake Park, P.U.D. Subdivision and the Winchester Place Subdivision, Sections "A" and "B" to a point on the southerly right-of-way line of Winchester Road; thence eastwardly with the existing Memphis City Limits and the southerly right-of-way line of Winchester Road to its intersection with a southward projection of the easterly property line of the Fox Meadows Gardens Subdivision, Section "B"; thence northwardly with the existing Memphis City Limits and along said southward projection and the easterly property lines of the Fox Meadows Gardens Subdivision, Sections "A" and "B" to a point on the southerly property line of the First Addition to Fox Hollow Subdivision; thence eastwardly with the existing Memphis City Limits and along the southerly property lines of the First Addition to Fox Hollow Subdivision and the Fox Hollow Subdivision to a point on the southeast corner of said Fox Hollow Subdivision; thence northwardly with the existing Memphis City Limits and along the easterly property line of the Fox Hollow Subdivision to a point on the southerly right-of-way line of Knight Arnold Road; thence westwardly with the existing Memphis City Limits and the southerly right-of-way line of Knight Arnold Road to its intersection with a southward projection of the easterly property line of the Green Fairways Subdivision; thence northwardly with the existing Memphis City Limits and along said southward projection and the easterly property line of the Green Fairways Subdivision to a point on a southerly property line of the City of Memphis 160 acre parcel; thence eastwardly with the existing Memphis City Limits and the southerly property line of said City of Memphis 160 acre parcel to a point on a southeast corner of said parcel; thence northwardly with the existing Memphis City Limits and the easterly property lines of the City of Memphis 160 acre parcel, the Regal Vista Subdivision and a northward projection of said Regal Vista Subdivision's easterly property line to a point on the northerly right-of-way line of Mt. Moriah Road Extended; thence northwardly with the existing Memphis City Limits and the easterly property lines of the Greenbrook Development Company parcel, the Louise K. Ellis, 2.82 acre parcel and a northward projection of said Ellis' parcel east property line to its intersection with the midstream of the Nonconnah Creek Drainage Canal; thence in a generally southeastwardly direction with the existing Memphis City Limits and the midstream or centerline of the Nonconnah Creek Drainage Canal and its meanderings to a point 300 feet southeastwardly from the centerline of Winchester Road as measured perpendicular thereto; thence continuing in a generally southeastwardly direction along the midstream or centerline of the Nonconnah Creek Drainage Canal to its intersection with a northward projection of the westerly property line of the Steven Stansell 333.93 acre parcel (02-42-127); thence southwardly along said northward projection and the westerly property lines of the said Steven Stansell 333.93 acre parcel, the Roy E. and Patricia R. Elliot 3.74 acre parcel (02-41-296), a continuation of the aforementioned Steven Stansell 333.93 acre parcel and the Steven Stansell Properties, Inc. 36.19 acre parcel (02-42-128) to a point on the northerly property line of the Eulyse M. Smith and E.T. Hutton 17.31 acre parcel (02-41-284); thence westwardly along said northerly property line of the Eulyse M. Smith and E.T. Hutton 17.31 acre parcel to a point in the northwest corner of said parcel; thence in a generally southwestwardly direction along the westerly property lines of the said Eulyse M. Smith and E.T. Hutton 17.31 acre parcel and the Guy B. Smith 39.23 acre parcel (02-41-243) to a point on the easterly right-of-way line of Germantown Road; thence southwardly along the easterly right-of-way line of Germantown Road to a point on the northerly right-of-way line of Shelby Drive;



thence eastwardly along the northerly right-of-way line of Shelby Drive to its intersection with a northward projection of the westerly property line of the James F. Jackson 5.0 acre parcel (D2-55-139); thence southwardly along said northward projection and the westerly property lines of said James F. Jackson 5.0 acre parcel and the William H. Jackson 56 acre parcel (D2-55-138) to a point on the northerly property line of the Village of Holly Knoll Subdivision; thence eastwardly along the northerly property line of the said Village of Holly Knoll Subdivision to a point on the northern most northeast corner of said subdivision; thence southwardly along the western most easterly property line of the Village of Holly Knoll Subdivision to a point on the southern most northerly property line of said subdivision; thence eastwardly along the southern most northerly property line of the Village of Holly Knoll Subdivision to a point on the easterly property line of said subdivision; thence southwardly along the easterly property lines of the said Village of Holly Knoll Subdivision and the Woods Landing of the Villages of Bennington Subdivision to a point on the northern most southerly property line of the Woods Landing of the Villages of Bennington Subdivision; thence westwardly along said northern most southerly property line to a point on the western most easterly property line of the Woods Landing of the Villages of Bennington Subdivision; thence southwardly along the western most easterly property line of the Woods Landing of the Villages of Bennington Subdivision and a southward projection of said line to a point on the southerly right-of-way line of Holmes Road; thence westwardly along the southerly right-of-way line of Holmes Road to its intersection with the easterly right-of-way line of Germantown Road Extended; thence southwardly along the easterly right-of-way line of Germantown Road Extended to its intersection with an eastward projection of the southerly property line of the William and Theresa A. Finch parcel (D2-55-112); thence westerly along said eastward projection and the southerly property line of said Finch parcel to a point on the easterly property line of the Cumberland Presbyterian Church 2.65 acre parcel (D2-55-113); thence southwardly along the easterly property line of said church property to a point on the southerly property line of said church property; thence westwardly along the southerly property line of said Cumberland Presbyterian Church 2.65 acre parcel to a point on the easterly property line of the Labelle Haven Baptist Church 35 acre parcel (D2-55-245); thence southwardly along the easterly property line of said Labelle Haven Baptist Church 35 acre parcel to a point on the southerly property line of said parcel; thence westwardly along the southerly property line of said Labelle Haven Baptist Church 35 acre parcel to a point on the westerly property line of said parcel; thence northwardly along said Labelle Haven Baptist Church 35 acre parcel to a point on the southerly right-of-way line of Holmes Road; thence westwardly along the southerly right-of-way line of Holmes Road to its intersection with the westerly right-of-way line of Crumpler Road; thence northwardly along the westerly right-of-way line of Crumpler Road to a point on the northerly property line of the Expressway Motel Corporation 30.98 acre parcel (D2-55-271); thence westwardly along the northerly property line of said Expressway Motel Corporation 30.98 acre parcel to a point on the westerly property line of said parcel; thence southwardly along the westerly property line of said Expressway Motel Corporation 30.98 acre parcel to a point on the southerly property line of the Partnership of H.H.G. 48.14 acre parcel (D2-54-316); thence westwardly along the southerly property line of the said Partnership of H.H.G. 48.14 acre parcel and the northern most southerly property line of the HHB of Memphis, Inc. 50.33 acre parcel (D2-54-225) to a point on the western most easterly property line of said parcel; thence southwardly along the western most easterly property line of HHB of Memphis, Inc. 50.33 acre parcel to a point on the southerly property line of said parcel; thence westwardly along the southerly property line of the said HHB of Memphis, Inc. 50.33 acre parcel to a point on the westerly property line of said parcel; thence northwardly along the westerly property line of the HHB of Memphis, Inc. 50.33 acre parcel to a point on the southerly property line of the Travelnol Laboratories, Inc. 49.39 acre parcel (D2-54-224); thence westwardly along the southerly property line of the Travelnol Laboratories, Inc. 49.39 acre parcel and a westward projection of said line to a point on the southwesterly right-of-way line of the Frisco Railroad; thence northwestwardly along the southwesterly right-of-way line of the said Frisco Railroad to a point on the southerly right-of-way line of Shelby Drive; thence westwardly along the southerly right-of-way line of Shelby Drive to its intersection with the northwesterly right-of-way line of the Texas Gas Transmission Line easement, said point of intersection being the point of beginning.

APPENDIX B

PLAN OF SERVICES

SOUTHEAST MEMPHIS ANNEXATION AREA  
STUDY AREA #33

PLAN OF SERVICES  
SOUTHEAST MEMPHIS  
STUDY AREA #33

POLICE

1. Patrolling, radio response to calls and other routine police services using present personnel and equipment will be provided on June 30, 1988.
2. Traffic signals, traffic signs, street markings and other traffic control devices will be installed as the need thereof is established by appropriate study and traffic standards.

FIRE SERVICE

1. Fire protection by the present personnel and equipment of the fire suppression force, within the limits of available water and distance from fire stations, will be provided on June 30, 1988.
2. The City fire suppression force will be prepared to occupy City Fire Station #52, near the intersection of Winchester and Ross Roads on June 30, 1988. The utilization of this station by the City will be coordinated with the Shelby County Fire Department to ensure that there will be no interruption of fire protection in the nearby areas that are not to be annexed.

EMERGENCY MEDICAL SERVICES

1. Emergency medical services will be provided, including ambulance and paramedic service, on June 30, 1988 in accordance with the current City of Memphis operational standards.

WATER

1. Water for domestic, commercial and industrial use will be provided at City rates from existing lines on June 30, 1988. Thereafter, water will be provided from new lines as extended in accordance with current policies of the City. The City will purchase any additional lines owned by the Shelby County Board of Utilities.
2. Water for fire protection is generally available throughout the area to be annexed. The installation of additional water lines and fire hydrants to meet the standards applicable in the City will be completed by December 31, 1990.

## SEWERS

1. The necessary interceptor and trunk sewers serving areas within the annexation boundaries that are substantially developed at the time of annexation will have been completed by June 30, 1988. Additional interceptor and trunk sewers will be constructed as warranted by the progress of land development.
2. Where needed construction of new collector sewers in the previously developed portions of the annexed area will be completed in accordance with priorities set by the governing body through the Capital Improvement Program. Residences and commercial and industrial properties will then be connected to those sewers in accordance with current policies.
3. Drainage improvements in the previously developed portions of the annexation area will be made with priorities set by the governing body through the Capital Improvement Program and the current City policies regarding emergency repairs.

## SEWAGE TREATMENT

1. Wastewater from the sewers of the annexed area will continue to be treated by the City treatment plant(s) in accordance with state and federal regulations on June 30, 1988.

## REFUSE COLLECTION AND DISPOSAL

1. Refuse collection service will be provided by the City in the annexed area on June 30, 1988. Curbside pickup, in accordance with City of Memphis standards will be in effect on June 30, 1988.
2. City facilities for the disposal of solid wastes will be available for receipt of solid wastes from the annexed area on the same basis as the present City on June 30, 1988.

## STREETS

1. Emergency maintenance, (repair of hazardous chuck holes, measures necessary for traffic flow, etc.) will begin on June 30, 1988.
2. Routine maintenance, on the same basis as in the present City, will begin in the annexed area when funds from the state gasoline tax based on the annexed population are received.
3. Reconstruction and resurfacing of streets, installation of storm drainage facilities, construction of curbs and gutters and other such major improvements as the need thereof is determined by the governing body, will be accomplished throughout the Capital Improvement Program of the City and the provisions of the Subdivision Regulations.

## STREET LIGHTING

1. In those areas of the annexed area that are substantially developed with commercial and residential uses on the effective date of the annexation, street lights will be installed by approximately June 30, 1991. In all other such areas that are developed subsequent to June 30, 1988, street lights will be installed in accordance with the policies currently in effect throughout the City.

## ELECTRICITY

1. The Memphis Light, Gas and Water Division will provide electrical service throughout the annexed area utilizing the distribution system existing on June 30, 1988, at the rates applicable throughout the balance of the City, and thereafter from new lines in accordance with current policies of the City.

## GAS SERVICE

1. The Memphis Light, Gas and Water Division will provide gas service throughout the annexed area utilizing the current distribution system existing on June 30, 1988, at the same rates applicable throughout the balance of the City, and thereafter from new lines in accordance with the current policies of the City.

## SCHOOLS

1. Those students in the annexed area that are currently served by the City school system under the previous agreement with the Shelby County Board of Education will continue to be served by the Memphis City Schools.
2. Students currently served by the County school system will become part of the City school system as arranged through negotiations with the County. The change will take place at the beginning of the 1988-1989 school year.

## RECREATION

1. A recreation program adapted to the existing facilities will be extended to the annexed area on June 30, 1988.
2. Additional recreational facilities (at the same standards existing in the City), as the need thereof is determined by the governing body, will be provided in the annexed area through the Capital Improvement Program of the City.

## INSPECTION SERVICES

1. Any inspection services now provided by the City (automobile, building, electrical, plumbing, gas, housing, weights and measures,

sanitation, etc.) will begin in the annexed area on June 30, 1988.

#### PLANNING AND ZONING

1. Planning, Zoning and Subdivision Regulations for the unincorporated area of Shelby County as contained in the Joint Ordinance and Resolutions Numbers 2524, 3064 and 3352 respectively, and as they may be amended, are also the Planning, Zoning and Subdivision Regulations for the City of Memphis. The services provided by the Office of Planning and Development, the Land Use Control Board and the Board of Adjustment will continue to be the same in the annexed area after June 30, 1988. The existing zoning of the annexed area will be maintained until the need for changes is determined by the governing body in accordance with the Zoning Ordinance.

#### MISCELLANEOUS

All City of Memphis administrative, health, construction codes and similar services and regulations will apply to the area on June 30, 1988.